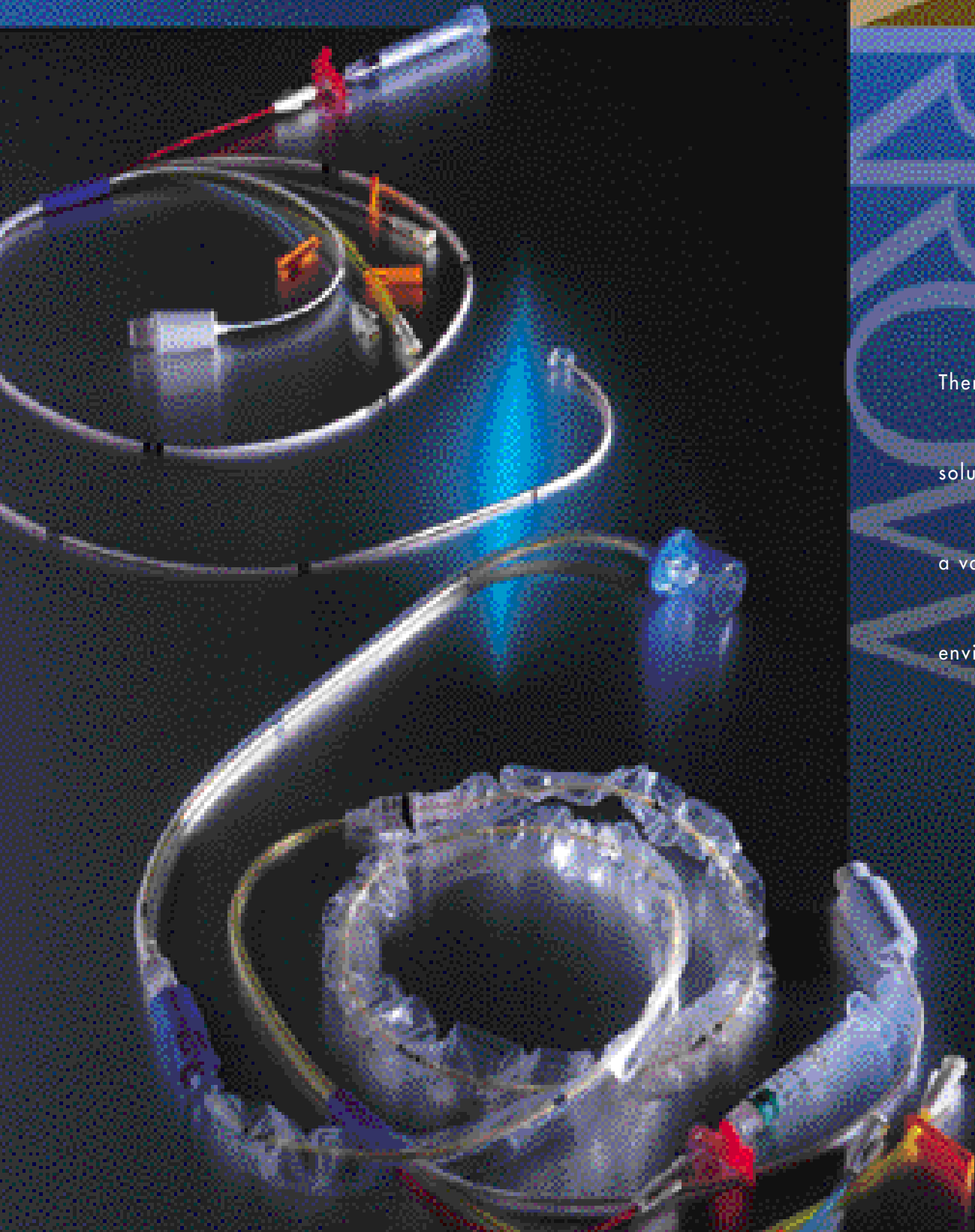


Arrow HANDS-OFF® and Balloon Thermodilution Catheters



Thermodilution
solutions for
a variety of
environments.

PROVIA

Arrow

HANDS-OFF® and

Balloon Thermodilution

Catheters

HANDS-OFF® Thermodilution Catheters

Contamination risk is virtually eliminated^{1,2,3}.

- HANDS-OFF®⁴ catheters arrive completely encased in sterile protection with the integral Cath-Gard®^{5,6}.
- The Cath-Gard® encases the entire length of the catheter, so you can manipulate it with virtually no risk of contamination; exposure to blood-borne diseases is minimized, too.

Easier to gauge insertion depth.

- Centimeter markings on the 110cm catheter body allow more accurate gauge of insertion depth.

Easier lumen identification.

- Clear, color-coded and labeled extension lines permit visible infusate administration and easier lumen identification.

One pair of hands is all you need.

For maximum contamination protection and kink resistance, HANDS-OFF® catheters are designed to be placed with Arrow-Flex® Percutaneous Sheath Introducers.

Arrow HANDS-OFF® Thermodilution Catheter® Specifications

Product No.	Description	Per Case
Torque Control HANDS-OFF® Catheters® with Cath-Gard® and Integral Flushing/Balloon Test Chamber		
AH-05050	7.5 Fr. x 110 cm Five-Lumen Thermodilution Catheter	5
AH-05050-H	7.5 Fr. x 110 cm Five-Lumen Heparin-Coated Thermodilution Catheter	5
AH-05155-H	7.5 Fr. x 110 cm Five-Lumen Heparin-Coated Thermodilution Catheter	5
Thermo-Pace®⁷ HANDS-OFF® Catheters with Pacing Access Lumen, Cath-Gard® and Integral Flushing/Balloon Test Chamber		
AH-05075-H	7.5 Fr. x 90 cm Five-Lumen Heparin-Coated Torque Control Thermodilution Catheter	5
Flexi-Torque HANDS-OFF® Catheters® with Cath-Gard® and Integral Flushing/Balloon Test Chamber		
AH-05050-G	7.5 Fr. x 110 cm Five-Lumen Thermodilution Catheter	5
AH-05050-GH	7.5 Fr. x 110 cm Five-Lumen Heparin-Coated Thermodilution Catheter	5
Firm Flotation HANDS-OFF® Catheters® with Cath-Gard® and Integral Flushing/Balloon Test Chamber		
AH-05050-F	7.5 Fr. x 110 cm Five-Lumen Thermodilution Catheter	5
AH-05000-F	7 Fr. x 110 cm Four-Lumen Thermodilution Catheter	5
Flotation HANDS-OFF® Catheters® with Cath-Gard® and Integral Flushing/Balloon Test Chamber		
AH-05050-D	7.5 Fr. x 110 cm Five-Lumen Thermodilution Catheter	5
AH-05150-H	7.5 Fr. x 110 cm Five-Lumen Heparin-Coated Thermodilution Catheter	5
AH-05000	7 Fr. x 110 cm Four-Lumen Thermodilution Catheter	5
AH-05000-H	7 Fr. x 110 cm Four-Lumen Heparin-Coated Thermodilution Catheter	5
AH-05100-H	7 Fr. x 110 cm Four-Lumen Heparin-Coated Thermodilution Catheter	5

Refer to package insert for current warnings, precautions, and instructions for use.

¹ Singh SJ, Puri VK. Prevention of bacterial colonization of pulmonary artery catheters. *Infections in Surgery*. November 1984;853-856.

² Nagle DM, Levy JH, Waller JL, Curling PE. An improved technique for contamination reduction during central venous cannulation. Emory University School of Medicine, Atlanta Georgia, Unpublished, 1987.

³ Cohen Y, Fosse JP, Karoubi P, Reboul-Marty J, Dreyfuss D, Hoang P, Cupa M. The "hands-off" catheter and the prevention of systemic infections associated with pulmonary artery catheter: a prospective study. *Am J Respir Crit Care Med*. 1998;157:284-287.

⁴ U.S. Patent Number 4,834,710.

⁵ Gabriel F, MD, Serwin J, DO, Bastanfar M, MD, Schmidt R, MD. The "Hands Off" PA catheter, is it a new device to minimize contamination and infection during insertion of the pulmonary artery catheter? Henry Ford Hospital, Detroit Michigan, Unpublished.

⁶ U.S. Patent Number 4,515,592.

⁷ Refer to product labeling for information about pacing electrodes compatible with Arrow Thermo-Pace® HANDS-OFF® catheters or contact Arrow International, Inc.

⁸ 1-1/2cc maximum capacity balloon.

Balloon Thermodilution Catheters

Quick identification of lumens.

- Color-coded, non-kink extension lines allow immediate identification of various lumens.

Easy insertion and handling.

- No-bulge taper tip facilitates percutaneous introduction, while reducing blood loss and the risk of internal damage. Winged hubs facilitate easier handling.

More control.

- New, appropriately-sized syringes with volume “stops” help you avoid latex balloon overinflation.
- Removable slide clamps provide additional, convenient control over individual lumens.

More options to choose from.

- Heparin-coated and non-coated catheters.
- Four different catheter body firmnesses.

Firmer, for difficult and long groin insertions:

1. Torque-control (T) catheters.
2. Flexi torque (FT) catheters are slightly softer than torque-control.

Softer, for central access, with superior flotation characteristics:

3. Firm flotation (FM) catheters are a bit firmer than flotation.
4. Flotation (F) catheters are softer and more pliable.

Arrow Balloon Thermodilution Catheter Specifications

Product No.	Description	Introducer Size Recm'd ¹¹ (Fr.)	Balloon Maximum Capacity ¹² (cc)	Balloon Inflated Diameter ¹³ (mm)	Distal Lumen Port Max. Wire	CVP Proximal Lumen Port Distance from Tip (cm)	Infusion Lumen Port Distance from Tip (cm)
Torque Control Catheters¹⁰							
AI-07077 ⁹	7.5 Fr. x 110 cm Heparin-Coated Torque Control Catheter	8.5	1-1/2	12	.025"	29	31
AI-07067	7 Fr. x 110 cm Heparin-Coated Torque Control Catheter	8	1-1/2	12	.025"	29	NA
AI-07167	7 Fr. x 110 cm Torque Control Catheter	8	1-1/2	12	.025"	29	NA
AI-07365-HL	6 Fr. x 110 cm Heparin-Coated Torque Control Catheter	7	1	10	.018"	29	NA
AI-07365-H	6 Fr. x 80 cm Heparin-Coated Torque Control Catheter	7	1	10	.018"	15	NA
AI-07065	5 Fr. x 80 cm Heparin-Coated Torque Control Catheter	6	1	8	.018"	15	NA
AI-07165	5 Fr. x 80 cm Torque Control Catheter	6	1	8	.018"	15	NA
AI-07055-H	5 Fr. x 80 cm Heparin-Coated Torque Control Catheter	6	1	8	.018"	10	NA
AI-07044	4 Fr. x 75 cm Torque Control Catheter	5	3/4	8	.014"	10	NA
AI-07044-H	4 Fr. x 75 cm Heparin-Coated Torque Control Catheter	5	3/4	8	.014"	10	NA
Thermo-Pace[®] Thermodilution Catheter w/Pacing Access Lumen							
AI-07385-H ^{9,14}	7.5 Fr. x 110 cm Heparin-Coated Torque Control Catheter	8.5	1-1/2	12	.025"	29	19
Flexi Torque Catheters¹⁰							
AI-07077-G ⁹	7.5 Fr. x 110 cm Flexi Torque Catheter	8.5	1-1/2	12	.025"	29	31
AI-07077-GH ⁹	7.5 Fr. x 110 cm Five-Lumen Heparin-Coated Flexi Torque Catheter	8.5	1-1/2	12	.025"	29	31
Firm Flotation Catheters¹⁰							
AI-07377-F ⁹	7.5 Fr. x 110 cm Five-Lumen Heparin-Coated Firm Flotation Catheter	8.5	1-1/2	12	.025"	29	31
AI-07368-F ⁹	7 Fr. x 110 cm Heparin-Coated Firm Flotation Catheter	8	1-1/2	12	.025"	29	NA
Flotation Catheters¹⁰							
AI-07377	7.5 Fr. x 110 cm Heparin-Coated Flotation Catheter	8.5	1-1/2	12	.025"	29	31
AI-07367	7 Fr. x 110 cm Flotation Catheter	8	1-1/2	12	.025"	29	NA
AI-07368	7 Fr. x 110 cm Four-Lumen Heparin-Coated Flotation Catheter	8	1-1/2	12	.025"	29	NA

⁹ With Infusion Port.

¹⁰ Torque, flexi torque and firm flotation catheters are white and flotation catheters are yellow in color. Our most firm catheter is the torque model and softens through to flexi torque, then firm flotation then flotation catheter.

¹¹ The recommended sheath introducer with side arm access is shown as one French size larger than the catheter size to allow function of the side arm. The suggested minimum size introducer is the same French size as the catheter except for 4 Fr. which requires a 5 Fr. introducer to allow passage of the outside diameter of the deflated balloon.

¹² CO₂ is the recommended inflation media. See instructions for use prior to using air. Do not use any liquid to inflate balloon.

¹³ Specifications given are nominal.

¹⁴ Thermo-Pace[®]/Infusion Port Catheter.

Note: The natural frequency of Arrow thermodilution catheters with pressure monitoring line and transducer assembly is similar to competitors' catheters with the same pressure monitoring line and transducer assembly.

Note: Thermistor resistance at 37°C is 14,004 ohms ±1.5%. Thermistor resistance change is -520 ohms/°C.

Instructions for Insertion

Flushing and Balloon Testing Before Use:

- 1** Remove the catheter from the tray and attach the catheter lumens to the appropriate flushing lines. (See figures 1, 2, 3 and product instructions for procedure details.)
- 2** Allow the balloon to deflate.

Inserting the Catheter:

- 1** After flushing the pressure lumens, and testing the balloon, connect the PA distal lumen to a pressure monitor. (See figures 4 through 7 and product instructions for procedure details.)
- 2** Extend the Cath-Gard® to its full length, making sure that the catheter tip is within the distal Cath-Gard® hub.
- 3** Disconnect the distal Cath-Gard® hub from the test chamber and connect the Cath-Gard® hub to a previously placed Arrow Percutaneous Sheath Introducer.
- 4** Next, advance the catheter through the sheath introducer.
- 5** Continue to advance the catheter until the pressure tracing indicates that the tip of the catheter is in the right atrium. (From this point, standard pulmonary artery catheter procedures should be followed.)
- 6** Rotate the exclusive locking hub on the distal end of the Cath-Gard® to firmly grip the catheter and prevent catheter movement after it is locked.



Figure 1.
Hold so catheter
tip points down.



Figure 2.
Inject the
inflation medium.



Figure 3.
Examine balloon
for bubbles.



Figure 4.
Extend the
Cath-Gard® to
its full length.



Figure 5.
Connect the
Cath-Gard® hub.



Figure 6.
Advance
the catheter.



Figure 7.
Rotate the exclusive
locking hub.

Arrow

HANDS-OFF® and

Balloon Thermodilation

Catheters

Choose from a wide variety of Arrow technically advanced Percutaneous Sheath Introducer systems.

We believe in offering you the widest variety of PSI options. Select from:

- Integral (one-piece) and two-piece PSI kits and sets.
- Variety of sizes, 6 Fr. to 10 Fr.
- FEP, polyurethane, and Super Arrow-Flex® materials.
- ARROWgard® antimicrobial infection protection PSI kits and sets.

Kinking is virtually eliminated with Arrow Super Arrow-Flex® Sheath Introducers.

- Exclusive coil-wire design allows flexibility in any direction without kinking.
- Distinct color-coded hubs correspond to specific sheath sizes for identification at a glance.
- Highly radiopaque marker band on select Super Arrow-Flex® sheath introducers to confirm sheath tip location.

For more information, call your Arrow representative or contact us by calling 800-523-8446 or 610-378-0131.

For information regarding distribution in your area, contact:

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Caution: U.S. Federal Law limits this device to sale by or on order of a physician. Contents of unopened, undamaged package are sterile. Disposable. Refer to package insert for current warnings, precautions, and instructions for use.

Contact Arrow International, Inc. for reference information on the above.

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